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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/048,050

03/25/2002

Rudi Frenzel

1406/41

2761

25297

7590

09/18/2006

JENKINS, WILSON, TAYLOR & HUNT, P. A.
3100 TOWER BLVD
SUITE 1200
DURHAM, NC 27707

EXAMINER

KIM, KEVIN

ART UNIT

PAPER NUMBER

2611

DATE MAILED: 09/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/048,050

Applicant(s)

FRENZEL ET AL.

Examiner

Kevin Y. Kim

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 August 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on August 28, 2006 has been entered.

Response to Arguments

2. Applicant's arguments filed August 28, 2006 have been fully considered but they are not persuasive.

Applicant argues that the Mestdag reference fails to teach the MTS should occupy the lower frequency band than the ADSL data stream. However, the allocation of frequency bands to respective MTS and ADSL data would have been a matter of design choice and further, if anything, the lower frequency band would have been assigned to the MTS since conventionally the telephone signal is placed at a lower frequency band when a same channel is used to carry ADSL signal in a multiplexing manner. Applicant also asserts that the Proctor et al reference teaches away the claimed invention. However, the Proctor clearly teaches the alternatives to the his own claimed invention, one of them being "dedicating a number of discrete carriers to specifically carry the ISDN signal." Just because the alternative was not adopted it does not necessarily mean that the incorporation of the technique into inventions in the analogous art such as that of the Mestdag reference, would not have been obvious. The Proctor reference

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describes that such a technique would be relatively complex when both ISDN and ATM come from the same source.

Since the Mestdagh already teach the ADSM modem transmitting non-ADSL data in its subcarriers, the questions was whether the transmission of ISDN in some of subcarriers would have been obvious. The Proctor reference describes such a concept. Thus, one skilled in the art would have combined the two references to arrive at the claimed invention.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mestdagh et al (EP 0740451 A1, submitted by applicant) in view of Proctor (EP 0844795 A2 cited previously).

Claims 1 and 5.

Mestdagh et al discloses joint transmission of POTS signal and ADSL data between a first station (CO-IM) and a second station (S-IM), comprising the steps of;

modulating POTS signal by the ADSL modulator (ADSL-U), at the first station, wherein the POTS signal is modulated on a subset of carriers while the ADSL data is modulated on the remaining frequencies, see col. 4, lines 5-12,

demodulating the mixed signal, at the second station, by means of an ADSL demodulator (ADSL-U') to form a corresponding ADSL data stream and a corresponding POTS signal, see col. 8, line 48 – col.9, line 4.

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See col. 9, lines 33-36 for modulation at the second station and demodulation at the first station

The claimed invention is different from that of Mestdagh et al in that ISDN data stream as opposed to POTS signal is modulated by the ADSL modulator. Proctor teaches modulating ISDN data in VDSL format using discrete multi-tone. See page 3, lines 29-32. Thus, it would have been obvious to one skilled in the art at the time the invention was made to modulate ISDN data on a subset of carriers of ADSL in addition to or instead of POTS signal in the Mestdagh's system for the purpose of using one modulator for transmitting both signal types, as taught by Proctor.

Claims 2 and 3.

Mestdagh et al in combination of Proctor is silent on what carrier frequencies would be assigned for ADSL data and ISDN data. However, it would have been a matter of design choice to allocate particular frequency band.

Claim 4.

It would have been obvious to adjust the frequency band allocated for the ISDN for the purpose of maximum utilization of the given frequency bands.

Claim 6.

See the POTS transceiver of Mestdagh et al, which would have been an ISDN transceiver when Mestdagh et al and Proctor are combined as proposed above.

Claim 7.

SLIC/CODEC is a well known part of ADSL transceiver.

Claim 8.

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See "a relay device" (S2) in the Figure of Mestdagh et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Y. Kim whose telephone number is 571-272-3039. The examiner can normally be reached on 8AM --5PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel can be reached on 571-272-2988. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

September 14, 2006

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KEVIN KIM
PRIMARY PATENT EXAMINER

